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ERIC B. MEYERTONS  
(512) 703-1254  
emeyertons@intprop.com

## CONLEY, ROSE & TAYON

A Professional Corporation  
Frost Bank Plaza  
816 Congress Avenue, Suite 320  
Austin, Texas 78701-2443  
(512) 476-1400  
Facsimile (512) 703-1250

Houston Office  
Texas Commerce Tower  
600 Travis, Suite 1850  
Houston, Texas 77002-2912  
(713) 238-8000  
Facsimile (713) 238-8008

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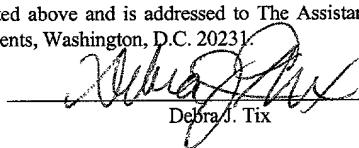


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Debra J. Tix

### ATTN: PATENT APPLICATIONS

Assistant Commissioner for Patents  
Washington, D.C. 20231

Re: U.S. Patent Application Entitled **"SYSTEM AND METHOD FOR  
DISPLAYING MESSAGES USING A MESSAGES TABLE" (COLOSSUS)**  
-- Brian Wolfe

Sir:

Transmitted herewith for filing is a disclosure including a title page, a 17 page specification, 11 pages of claims (Claims 1-56), and a one page abstract. In addition, we have also included drawings, Figures 1a - 4, on 4 sheets. The disclosure and drawings constitute the application of Gregory Jones and Allison W. Spann for the above-entitled invention.

Please note that this application is filed without an inventor Declaration and filing fees. Applicant requests the Patent and Trademark Office to accept this application and accord a serial number and filing date as of the date this application is deposited with the U.S. Postal Service for Express Mail. Further, the Applicant requests that the NOTICE OF MISSING PARTS-FILING DATE GRANTED be sent to the undersigned Applicant representative.

Assistant Commissioner for Patents  
June 23, 2000  
Page 2

Please address all correspondence in connection with this application to:

ERIC B. MEYERTONS  
CONLEY, ROSE & TAYON, P.C.  
P.O. BOX 398  
AUSTIN, TEXAS 78767-0398  
PH: (512) 476-1400

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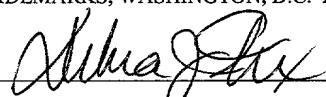
Respectfully submitted,

Eric B. Meyertons  
Reg. No. 34,876  
Attorney for Applicant

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Debra J. Vix

**SYSTEM AND METHOD FOR DISPLAYING MESSAGES  
USING A MESSAGES TABLE**

By:

Brian Wolfe

Atty. Dkt. No.: 5053-36200

Eric B. Meyertons/VVC/RPH  
Conley, Rose & Tayon, P.C.  
P.O. Box 398  
Austin, Texas 78767-0398  
Ph: (512) 476-1400

## **BACKGROUND OF THE INVENTION**

### **1. Field of the Invention**

5 The present invention generally relates to the field of insurance claims. More particularly, the present invention relates to a system and method for displaying messages while processing insurance claims using a messages table.

### **2. Description of the Related Art**

10 Insurance companies have been processing and settling claims associated with bodily injury for a long time. The task of evaluating, analyzing or estimating the amount of damage associated with one or more types of bodily injuries, especially trauma-induced bodily injuries, can be very complex. Complexity in the evaluation process often 15 arises out of the fact that concurrent expertise in legal, medical and insurance fields is often required to arrive at a particular decision involving a bodily injury claim.

20 The processing of insurance claims, especially bodily injury related insurance claims, is typically performed by one or more computers included in a computer system. 25 The user typically interacts with the insurance claim processing computer system using a computer coupled to a display terminal and a keyboard. An application software program, which typically executes on a computer linked to the insurance claim processing computer system, provides the functionality to perform the processing of insurance claims. The process of determining an estimated amount of the claim associated with a bodily injury is typically interactive. The user may provide inputs to the insurance claim processing computer system by specifying the type or extent of bodily injury, describing the nature of treatments, etc.

30 The insurance claim processing computer system may use various messages displayed on the display terminal for prompting or communicating with the user to

provide meaningful and relevant input information. Messages may also be used to advise user of a status or condition of application program, list of missing inputs, warning or error messages, etc. In some cases, messages may be output to a printer rather than being displayed on a display screen.

5

During the past several years, many insurance companies have been using an earlier computer-based claim-processing system to process, evaluate, analyze or estimate thousands of claims. The computer-based claim-processing system may also be an expert system which utilizes and builds a knowledge base to assist the user in decision making.

10 It may allow the insurance companies to define new rules and/or use previously defined rules, in real-time. The business rules may be generally written by industry experts to evaluate legal, medical, insurance conditions before arriving at a valuation of a claim. The computer based claim-processing system also used messages displayed on a screen to interact with the system user.

15

There were several drawbacks with the earlier computer-based system. For example, the messages that were generated while processing the insurance claim, used in the prior art, lacked flexibility and was inefficient. The prior art used hard-coded messages. That is, the actual messages, including the message text, were part of the

20 application program source code. Messages were generated specific to the context of the application program. Thus, many messages which may have had the same text or message content had to be programmed and stored separately and could not be re-used. This increased memory requirements and decreased system performance. In addition, it was difficult to modify and install the application software for use in other countries,

25 which used a language other than, for example, US English. Maintenance of the messages hard-coded in the application program software was also time consuming and costly. This reduced the user's flexibility and usability.

It is, therefore, desirable to develop a new system and method for displaying messages while processing insurance claims using a messages table. It is desirable for the display of messages, including the message text, to be easily customizable for installation in a specific language and/or country. It is also desirable for the messages to be re-used 5 throughout the claims processing application software. Furthermore, it is desirable to be able to store the messages in a repository, external to the application program. Thus, the messages display system and method should be of a flexible design to allow the user to freely select message text based on user requirements.

## SUMMARY OF THE INVENTION

The present invention provides various embodiments of an improved method and  
5 system to display messages, while processing insurance claims, using a messages table.  
The messages associated with the processing of insurance claims are primarily used to  
obtain inputs from the user of the claims processing computer system. Messages, which  
are typically displayed on a display screen, may include questions, answers, errors,  
warnings, and other text used with interactive claims processing.

10

As a part of the initial configuration or setup process, the user defines the entries  
in the messages table and stores them in a database. The messages are stored as message  
codes along with a corresponding message text in a messages table. The database, which  
includes the messages table is the repository and the lookup system for the message codes  
15 and the corresponding message texts. Each message code has a corresponding  
customizable message text, which may be specified at installation time.

The application program may request a display of a specific message by providing  
its message code. In one embodiment, the GetMessageText method of the Message  
20 object, may be invoked, along with providing the values for MsgSectionIn and  
MsgCodeIn arguments associated with the GetMessageText method. The  
GetMessageText method, on execution, accesses the messages table and obtains the  
corresponding message text which is then passed on to the requesting application  
program. The application program, thus, remains unaffected to changes in corresponding  
25 customizable message texts.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

Figure 1a is a block diagram illustrating the architecture of one embodiment of an insurance claims processing system;

5 Figure 1b illustrates one embodiment of a networked insurance claim processing system;

Figure 2 is a flowchart illustrating a method of generating messages associated with processing an insurance claim according to one embodiment;

10 Figure 3 is a flowchart illustrating a method of using a messages table associated with processing an insurance claim according to one embodiment;

Figure 4 is an exemplary diagram of a messages table in a database according to one embodiment.

15 While the invention is susceptible to various modifications and alternative forms, specific embodiments thereof are shown by way of example in the drawings and will herein be described in detail. It should be understood, however, that the drawings and detailed description thereto are not intended to limit the invention to the particular form disclosed, but on the contrary, the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the present invention as defined by the 20 appended claims.

## **DETAILED DESCRIPTION OF SEVERAL EMBODIMENTS**

Figure 1a: A block diagram illustrating the architecture of one embodiment of an insurance claims processing system

5

In Figure 1a, an embodiment of an insurance claims processing system 10 may include a computer system 20. The term “computer system” as used herein generally includes the hardware and software components that in combination allow the execution of computer programs. The computer programs may be implemented in software, 10 hardware, or a combination of software and hardware. A computer system’s hardware generally includes a processor, memory media, and Input/Output (I/O) devices. As used herein, the term “processor” generally describes the logic circuitry that responds to and processes the basic instructions that operate a computer system. The term “memory” is used synonymously with “memory medium” herein. The term “memory medium” is intended to 15 include an installation medium, e.g., a CD-ROM, or floppy disks, a volatile computer system memory such as DRAM, SRAM, EDO RAM, Rambus RAM, etc., or a non-volatile memory such as optical storage or a magnetic medium, e.g., a hard drive. The memory medium may comprise other types of memory as well, or combinations thereof. In addition, the memory medium may be located in a first computer in which the programs are executed, 20 or may be located in a second different computer which connects to the first computer over a network. In the latter instance, the second computer provides the program instructions to the first computer for execution. Also, the computer system may take various forms, including a personal computer system, mainframe computer system, workstation, network appliance, Internet appliance, personal digital assistant (PDA), television system 25 or other device. In general, the term “computer system” can be broadly defined to encompass any device having a processor, which executes instructions from a memory medium.

The memory medium preferably stores a software program or programs for 30 processing insurance claims as described herein. The software program(s) may be

implemented in any of various ways, including procedure-based techniques, component-based techniques, and/or object-oriented techniques, among others. For example, the software programs may be implemented using a rule-based development tool such as PLATINUM Aion™ available from Computer Associates International, Inc. In one 5 embodiment, PLATINUM Aion™ may combine business rule and object-oriented technologies to create and maintain complex, knowledge-intensive applications. Software developed with PLATINUM Aion™ may employ an Aion™ programming language for automation of processes which may use hundreds or thousands of business rules from a knowledge base. An Aion™ inference engine may automatically determine 10 which rules to execute, when, and in what order. In various other embodiments, the software program may be implemented using other technologies, languages, or methodologies, as desired. A CPU, such as the host CPU, executing code and data from the memory medium includes a means for creating and executing the software program or programs according to the methods, flowcharts, and/or block diagrams described 15 below.

A computer system's software generally includes at least one operating system, a specialized software program that manages and provides services to other software programs on the computer system. Software may also include one or more programs to 20 perform various tasks on the computer system and various forms of data to be used by the operating system or other programs on the computer system. The data may include but are not limited to databases, text files, and graphics files. A computer system's software generally is stored in non-volatile memory or on an installation medium. A program may be copied into a volatile memory when running on the computer system. Data may be read 25 into volatile memory as the data is required by a program.

A server may be defined as a computer program that, when executed, provides services to other computer programs executing in the same or other computer systems. The computer system on which a server program is executing may also be referred to as a

server, though it may contain a number of server and client programs. In the client/server model, a server is a program that awaits and fulfills requests from client programs in the same or other computer systems.

5        The insurance claims processing system 10 may further include a display screen 50 connected to the computer system 20 and an insurance database 40 residing on an internal or external storage. The database may also be referred to as a repository. As used herein, a “database” may include a collection of information from which a computer program may select a desired piece of data. As used herein, an “insurance database” is 10 used as a synonym for a “database” when included in or coupled to an insurance claims processing system 10. System 20 includes memory 30 configured to store computer programs for execution on system 20, and a central processing unit (not shown) configured to execute instructions of computer programs residing on system 20. Claims processing program 60, also referred to as application program software 60, may be 15 stored in memory 30. As used herein, an “insurance claims processing program” 60 may include a software program which is configured to conduct transactions regarding insurance claims, such as by estimating the value of the insurance claims, for example.

20       The insurance claims processing system 10 may be used by an Insurance Company for processing insurance claims. The insurance claims processing system 10 may incorporate various embodiments of a system and method for displaying messages using a messages table. As used herein, an Insurance Company (IC) includes a business organization that provides insurance products and/or services to customers. More particularly, the insurance products may pertain to providing insurance coverage for 25 accidents and the trauma-induced bodily injuries that may result due to the accident. Examples of trauma-induced bodily injuries may include, but are not limited to: loss of limb(s); bone fractures; head, neck and/or spinal injury, etc.

In one embodiment, on receiving a trauma-induced bodily injury, a customer may file an insurance claim with his/her insurance organization to cover medical and other accident-related expenses. An IC may utilize a computer-based insurance claim processing system to process insurance claims. In one embodiment, the processing may 5 include estimating a value associated with the filed insurance claim.

As used herein, an IC business transaction may be defined as a service of an IC. Examples of business transactions include, but are not limited to: insurance transactions such as filing of claims, payment of claims, application for insurance coverage, and 10 customized benefits, etc. Business transactions may also include services related to customers, insurance providers, employers, insurance agents, investigators, etc.

As used herein, an IC insurance claim processing includes a series of instructions executed by a computer system for processing an IC's business transactions. A claim 15 processing system may include one or more processing tasks. A processing task may include a sequence of one or more processing steps or an ordered list or a structured list of one or more processing steps, associated with the business transaction to be processed by the claim processing system. In one embodiment, the sequence of steps may be fixed. In another embodiment the sequence of steps may be established dynamically, in real-time. In one embodiment, the sequence of one or more steps may include an initial step, a 20 final step, one or more intermediary steps, etc. In one embodiment, an IC user may select steps to process an insurance claim in a sequential manner. In another embodiment, the IC user may select steps to process an insurance claim in a random or arbitrary manner. Examples of processing steps may include, but are not limited to: receiving an input 25 from a user of the IC insurance claim processing system, reading a value from a database, updating a field in a database, displaying the results of a business transaction on a computer screen, etc.

In one embodiment, each processing step may have one or more associated messages. The primary purpose of these messages may be to display additional information related to the current step, solicit a user input, advise user of the current status of the processing step, etc. For example, messages displayed may advise the user to 5 provide an input response to a specific question. In another instance, a message may warn the user of an out-of-range input value.

In one embodiment, the insurance claim processing system utilizes object-oriented technology to process transactions and store information related to insurance 10 claims, including messages. In another embodiment, processing of transactions and storage of information related to insurance claims may utilize traditional programming languages and databases to achieve the same result. This would include processing and storage of messages.

15 The insurance claim processing system may utilize insurance objects, which may be defined to represent or model real-world business features of insurance products and services. This includes a message object to represent messages related to claim processing. Examples of insurance objects may include, but are not limited to, objects representing the following: an insurance claim; an accident report; a settlement; an estimated claim; IC 20 service facilities, customers, and employees; business process such as a new insurance application and calculation of a premium; interfaces to external insurance organizations; work tasks such as calculations, decisions, and assignments; temporal objects such as calendars, schedulers, and timers; and elemental data necessary to accomplish work tasks such as messages, medical costs, risk factors, etc.

25

An insurance object, such as a message object, may be represented on the computer screen by a graphical icon or by a display listing the properties of the insurance object in graphic and alphanumeric format. An insurance claim object may be configured to gather and evaluate data for processing a filed insurance claim and to automatically make decisions

about the insurance claim. The one or more processing steps associated with the processing of an insurance claim may also be configured as one or more processing step objects. In one embodiment, a display screen may be associated with a processing step. The display screen may also be represented as an object. Each display screen object may include a property to point to a previous display and another property to point to a next display screen. Each property, e.g. the next display pointer on a display screen object, may be changed dynamically by using methods associated with the display screen object. One display screen object may serve as the starting point for processing insurance claims. In one embodiment, the starting point for processing insurance claims may include acquiring an insurance claim identification number from an IC system user.

In one embodiment, the messages associated with a display screen may be represented as a message object. A message object may also have methods and properties associated with it. In one embodiment, during the processing of an insurance claim, a business rule may determine that the insurance claim processing needs the input of a user to continue the processing of the claim. The insurance claim processing software may invoke a method of a message object to display a message to the IC system user.

In one embodiment, upon startup, the program 60 may provide a graphical user interface to display claims processing related information, including messages, on display screen 50. It may collect user inputs, entered by using user input devices 52 in response to one or more messages displayed on display screen 50, and associated with insurance claims. It may process the user inputs, access an insurance database 40, use the contents of the insurance database 40 to estimate the insurance claim, and store it in memory 30 and/or insurance database 40. The program 60 may display a value of the estimated insurance claim on display screen 50. A user may view the display of the estimated insurance claim on display screen 50, and may interactively make modifications, additions, and deletions to the estimated insurance claim.

System 20 may also include one or more user input devices 52, such as a keyboard, for entering data and commands into the insurance claim program 60. It may also include one or more cursor control devices 54 such as a mouse for using a cursor to modify an insurance claim viewed on display screen 50. In response to the displaying of 5 messages related to the insurance claim, the insurance claim program 60 processing steps may be modified, updated and stored in the insurance database 40.

Figure 1b: One embodiment of a networked insurance claim processing system

10 Figure 1b illustrates one embodiment of a networked system, configured for processing insurance claims. In this embodiment, the system is shown as a client/server system with the server systems and client systems connected by a network 62. Network 62 may be a local area network or wide area network, and may include communications links including, but not limited to: Ethernet, token ring, internet, satellite, and modem.

15 Insurance claims processing system 10 as illustrated in Figure 1a may be connected to network 62. The insurance claim processing system software and insurance database 40 may be distributed among the one or more servers 70 to provide a distributed processing system for insurance claim transactions. In other words, an insurance claim processing transaction being processed by the insurance claim processing system may be routed to 20 any server based upon the workload distribution among servers 70 at the time of the transaction. Insurance claim processing system servers 70 may be located on a local area network or may be geographically dispersed in a wide area network.

One or more client systems 80 may also be connected to network 62. Client 25 systems 80 may reside at one or more claim processing units within the insurance company. In a wide area network, client systems 80 may be geographically dispersed. Client systems 80 may be used to access insurance claim processing system servers 70 and insurance database 40. An insurance claim-processing employee may use a client system 80 to access the insurance claim processing system and execute insurance

transactions. An employee may also use a client system 80 to interact with the insurance claim processing system. The interaction may include reading information from displays, messages, etc. displayed on a display screen and/or providing inputs to the insurance claim processing system. One or more printers 90 may also be connected to network 62 5 for printing documents, including reports, display screens, messages, etc. associated with insurance claim transactions.

Various embodiments further include receiving or storing instructions and/or data implemented in accordance with the description herein upon a carrier medium. Suitable 10 carrier media include memory media or storage media such as magnetic or optical media, e.g., disk or CD-ROM, as well as transmission media or signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as networks and/or a wireless link.

15 **Figure 2: Generating a message for an insurance claim processing system**

Figure 2 is a flowchart illustrating the generation of a message for processing an insurance claim by an insurance claim processing system, according to one embodiment. In step 100, the user of insurance claims processing system 10 may use a client system 80 20 to initially configure, set up, install and store the software associated with the insurance claims processing system, including all the messages.

In one embodiment, a message may be defined by a message code and a corresponding message text and both the message code as well as the message text stored 25 in a message table. In another embodiment, as shown in Figure 3, the message code may further include a message section 300 and a message code identifier 310. The combination of a specific message section and a specific message code identifier uniquely specifies or selects the message text 320 from the message table.

The initial configuration may include specifying or selecting a country and/or a language for the installation. In one embodiment, the selection of a language and/or a country may automatically select a corresponding message text stored in a database. In another embodiment, the user may modify the message text during the installation process.

In step 110, the application program software executing in the insurance claims processing system 10 may initiate a request to display a message. This may be in response to the execution of code in another portion of the application program software, or in response to a previous user input and/or in response to the execution of a business rule.

In step 120, the request to retrieve message text is processed further. In one embodiment, the request may be further processed by another portion of the application program software by invoking the GetMessageText method of the Message object, and including values for MsgSectionIn and MsgCodeIn arguments associated with the GetMessageText method. In another embodiment, the processing of the request may include executing software of a subroutine function to retrieve a corresponding message text for a given message code passed along by the requesting program as an input. The message text may be retrieved from a database, in one embodiment or from an object repository in another embodiment.

In step 130, the message text corresponding to a specified message code is received from step 120. In step 140, the requested message text is sent to the requesting program for display.

Figure 3: Using a messages table for an insurance claim processing system

Figure 3 is a flowchart illustrating a method of using a messages table associated with processing an insurance claim according to one embodiment. In step 200, an insurance claims processing program may generate a request to display a message, wherein the request may include a requested message code. Each message code may 5 include a sequence of alphanumeric values, wherein each sequence is unique relative to the other sequences. In one embodiment, each message code may include a message section and a message code identifier, as further illustrated in Figure 4.

10 In step 210, a messages table in a database may be searched for a matching entry which matches the requested message code. The table may store a plurality of entries including the matching entry, wherein each entry in the table may include a message code and a corresponding message text. The database may be implemented, for example, as a relational database or an object-oriented database.

15 In step 220, the matching entry may be retrieved from the table in response to said searching the table for the matching entry which matches the requested message code, wherein the matching entry comprises a matching message text.

20 In step 230, the matching message text corresponding to the requested message code may be displayed by the insurance claims processing program on a display device coupled to a computer system. The message text may be configured to assist a user in processing an insurance claim using the insurance claims processing program.

25 In various embodiments, the message text of each entry in the table may be specified during an installation of the insurance claims processing program on a computer system and/or during an installation of the table on a computer system. The message text of each entry in the table in the database may be updated by re-installing the table on the computer system without re-installing the insurance claims processing program on the computer system. The message text of one or more entries in the table may be

customized for a particular insurance organization during an installation of the insurance claims processing program on a computer system. Additionally, the message text of one or more entries in the table may be localized for use in a particular geographical location.

5        In one embodiment, the insurance claim may include a bodily injury claim, and processing the insurance claim may include processing the bodily injury claim to estimate a bodily injury general damages value. The requested message text may include information relevant to an estimate of a value of the insurance claim. The requested message code may include an injury code which identifies a specific bodily injury, and  
10      the requested message text may include a name of the specific bodily injury. The requested message code may include a treatment code which identifies a specific injury treatment, and the requested message text may include a name of the specific injury treatment.

15      Figure 4: An example of a messages table

Figure 4 is an exemplary diagram of a messages table in a database according to one embodiment. In one embodiment, the messages table may include columns such as message section 300, message code identifier 310, and message text 320. In one embodiment, the messages table may be implemented in any number of ways, such as a relational database, in a variety of commercially available database management systems. The messages table may have as many rows as may be supported by the database management system in which it is implemented. The messages table may be accessed (e.g., searched, written to, read from, etc.) through a programming interface or standard access mechanism (e.g., SQL) which is supported by the database management system in which the messages table is implemented.

30      Although the system and method of the present invention have been described in connection with several embodiments, the invention is not intended to be limited to the specific forms set forth herein, but on the contrary, it is intended to cover such

alternatives, modifications, and equivalents as can be reasonably included within the spirit and scope of the invention as defined by the appended claims.

**WHAT IS CLAIMED IS:**

1. A method comprising:  
an insurance claims processing program generating a request to display a  
message, wherein the request comprises a requested message code;  
5 searching a database for a matching entry which matches the requested message  
code, wherein the database stores a plurality of entries including the  
matching entry, wherein each entry in the database comprises a message  
code and a corresponding message text;  
10 retrieving the matching entry from the database in response to said searching the  
database for the matching entry which matches the requested message  
code, wherein the matching entry comprises a matching message text; and  
displaying the matching message text corresponding to the requested message  
code, wherein the message text is configured to assist a user in processing  
15 an insurance claim using the insurance claims processing program.
2. The method of claim 1, further comprising:  
specifying the message text of each entry in the database during an installation of  
the insurance claims processing program on a computer system.  
20
3. The method of claim 1, further comprising:  
specifying the message text of each entry in the database during an installation of  
the database on a computer system.  
25
4. The method of claim 3, further comprising:  
updating the message text of each entry in the database by re-installing the  
database on the computer system without re-installing the insurance  
claims processing program on the computer system.

5. The method of claim 1, further comprising:  
customizing the message text of one or more entries in the database for a  
particular insurance organization during an installation of the insurance  
claims processing program on a computer system.

5

6. The method of claim 1,  
wherein the message text of one or more entries in the database is localized for  
use in a particular geographical location.

10 7. The method of claim 1,  
wherein the database comprises a relational database.

8. The method of claim 1,  
wherein the database comprises an object-oriented database.

15 9. The method of claim 1,  
wherein each message code comprises a message section and a message code  
identifier.

20 10. The method of claim 1,  
wherein the insurance claim comprises a bodily injury claim, and wherein said  
processing the insurance claim comprises processing the bodily injury  
claim to estimate a bodily injury general damages value.

25 11. The method of claim 1,  
wherein the requested message text comprises information relevant to an estimate  
of a value of the insurance claim.

12. The method of claim 1,

wherein the requested message code comprises an injury code which identifies a specific bodily injury, and wherein the requested message text comprises a name of the specific bodily injury.

5 13. The method of claim 1,  
wherein the requested message code comprises a treatment code which identifies a specific injury treatment, and wherein the requested message text comprises a name of the specific injury treatment.

10 14. The method of claim 1,  
wherein said displaying the matching message text corresponding to the requested message code comprises the insurance claims processing program displaying the matching message text corresponding to the requested message code.

15 15. The method of claim 1,  
wherein said displaying the matching message text corresponding to the requested message code comprises displaying the matching message text on a display device coupled to a computer system.

20 16. The method of claim 1,  
wherein each message code comprises a sequence of alphanumeric values,  
wherein each sequence is unique relative to the other sequences.

25 17. A system comprising:  
a CPU;  
a memory coupled to the CPU, wherein the memory stores an insurance claims processing program which is executable by the CPU;  
a display device coupled to the CPU;

a database coupled to the CPU, wherein the database stores a plurality of entries, wherein each entry in the database comprises a message code and a corresponding message text;

wherein the memory stores program instructions which are executable by the

5 CPU to:

generate a request to display a message, wherein the request comprises a requested message code;

search the database for a matching entry which matches the requested message code;

10 retrieve the matching entry from the database, wherein the matching entry comprises a matching message text; and

display the matching message text corresponding to the requested message code on the display device, wherein the message text is configured to assist a user in processing an insurance claim using the insurance claims processing program.

15

18. The system of claim 17,

wherein the message text of each entry in the database is configured to be specified during an installation of the insurance claims processing

20 program.

19. The system of claim 17,

wherein the message text of each entry in the database is configured to be specified during an installation of the database.

25

20. The system of claim 19,

wherein the message text of each entry in the database is configured to be updated by re-installing the database on the computer system without re-installing the insurance claims processing program.

21. The system of claim 17,  
wherein the message text of one or more entries in the database is customized for  
use by a particular insurance organization.

5

22. The system of claim 17,  
wherein the message text of one or more entries in the database is localized for  
use in a particular geographical location.

10 23. The system of claim 17,  
wherein the database comprises a relational database.

24. The system of claim 17,  
wherein the database comprises an object-oriented database.

15 25. The system of claim 17,  
wherein each message code comprises a message section and a message code  
identifier.

20 26. The system of claim 17,  
wherein the insurance claim comprises a bodily injury claim, and wherein said  
processing the insurance claim comprises processing the bodily injury  
claim to estimate a bodily injury general damages value.

25 27. The system of claim 17,  
wherein the requested message text comprises information relevant to an estimate  
of a value of the insurance claim.

28. The system of claim 17,

wherein the requested message code comprises an injury code which identifies a specific bodily injury, and wherein the requested message text comprises a name of the specific bodily injury.

5 29. The system of claim 17,  
wherein the requested message code comprises a treatment code which identifies a specific injury treatment, and wherein the requested message text comprises a name of the specific injury treatment.

10 30. The system of claim 17,  
wherein each message code comprises a sequence of alphanumeric values,  
wherein each sequence is unique relative to the other sequences.

15 31. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement a method of:  
generating a request to display a message, wherein the request comprises a requested message code;  
searching a database for a matching entry which matches the requested message code, wherein the database stores a plurality of entries including the matching entry, wherein each entry in the database comprises a message code and a corresponding message text;  
20 retrieving the matching entry from the database in response to said searching the database for the matching entry which matches the requested message code, wherein the matching entry comprises a matching message text; and  
25 displaying the matching message text corresponding to the requested message code, wherein the message text is configured to assist a user in processing an insurance claim using an insurance claims processing program.

32. The carrier medium of claim 31,

wherein the message text of each entry in the database is configured to be specified during an installation of the insurance claims processing program.

5 33. The carrier medium of claim 31,  
wherein the message text of each entry in the database is configured to be specified during an installation of the database.

10 34. The carrier medium of claim 33,  
wherein the message text of each entry in the database is configured to be updated by re-installing the database on the computer system without re-installing the insurance claims processing program.

15 35. The carrier medium of claim 31,  
wherein the message text of one or more entries in the database is customized for use by a particular insurance organization.

20 36. The carrier medium of claim 31,  
wherein the message text of one or more entries in the database is localized for use in a particular geographical location.

25 37. The carrier medium of claim 31,  
wherein the database comprises a relational database.

38. The carrier medium of claim 31,  
wherein the database comprises an object-oriented database.

39. The carrier medium of claim 31,

wherein each message code comprises a message section and a message code identifier.

40. The carrier medium of claim 31,  
5 wherein the insurance claim comprises a bodily injury claim, and wherein said processing the insurance claim comprises processing the bodily injury claim to estimate a bodily injury general damages value.
41. The carrier medium of claim 31,  
10 wherein the requested message text comprises information relevant to an estimate of a value of the insurance claim.
42. The carrier medium of claim 31,  
15 wherein the requested message code comprises an injury code which identifies a specific bodily injury, and wherein the requested message text comprises a name of the specific bodily injury.
43. The carrier medium of claim 31,  
20 wherein the requested message code comprises a treatment code which identifies a specific injury treatment, and wherein the requested message text comprises a name of the specific injury treatment.
44. The carrier medium of claim 31,  
25 wherein said displaying the matching message text corresponding to the requested message code comprises the insurance claims processing program displaying the matching message text corresponding to the requested message code.
45. The carrier medium of claim 31,

wherein said displaying the matching message text corresponding to the requested message code comprises displaying the matching message text on a display device coupled to a computer system.

5 46. The carrier medium of claim 31,  
wherein each message code comprises a sequence of alphanumeric values,  
wherein each sequence is unique relative to the other sequences.

10 47. A method comprising:  
installing an insurance claims processing program on at least one of a plurality of computer systems operated by an insurance organization, wherein the insurance claims processing program is configured to assist a user employed by the insurance organization in processing insurance claims;  
and  
15 installing a message database on at least one of the plurality of computer systems operated by the insurance organization, wherein the message database comprises a plurality of entries, wherein each entry comprises a message code and a corresponding message text, and wherein the messages are configured to assist the user in said processing the insurance claims using  
20 the insurance claims processing program;  
wherein the insurance claims processing program is configured to:  
generate a request to display a message, wherein the request comprises a requested message code;  
search the message database for a matching entry which matches the  
25 requested message code;  
retrieve the matching entry from the message database, wherein the matching entry comprises a matching message text; and  
display the matching message text on a display device coupled to at least one of the plurality of computer systems.

48. The method of claim 47,  
wherein said installing the message database comprises specifying the message text of each entry in the message database.

5

49. The method of claim 47, further comprising:  
updating the message text of each entry in the message database by re-installing the message database without re-installing the insurance claims processing program.

10

50. The method of claim 47, further comprising:  
customizing the message text of one or more entries in the message database for the insurance organization prior to said installing the message database.

15

51. The method of claim 47,  
wherein the message text of one or more entries in the message database is localized for use in a particular geographical location.

20

52. The method of claim 47,  
wherein the insurance claims comprises bodily injury claims, and wherein said processing the insurance claims comprises processing the bodily injury claims to estimate bodily injury general damages values.

25

53. The method of claim 47,  
wherein the requested message text comprises information relevant to estimated values of the insurance claims.

54. The method of claim 47,

wherein the requested message code comprises an injury code which identifies a specific bodily injury, and wherein the requested message text comprises a name of the specific bodily injury.

5 55. The method of claim 47,

wherein the requested message code comprises a treatment code which identifies a specific injury treatment, and wherein the requested message text comprises a name of the specific injury treatment.

10 56. The method of claim 47,

wherein each message code comprises a sequence of alphanumeric values, wherein each sequence is unique relative to the other sequences.

## ABSTRACT OF THE DISCLOSURE

An improved method and system to display messages, while processing insurance claims, using a messages table. The messages associated with the processing of insurance claims are primarily used to obtain inputs from the user of the claims processing computer system. Messages, which are typically displayed on a display screen, may include questions, answers, errors, warnings, and other text used with interactive claims processing. The messages are stored as message codes along with a corresponding message text in a messages table. The database, which includes the messages table is the repository and the lookup system for the message codes and the corresponding message texts. Each message code has a corresponding customizable message text, which may be specified at installation time. The application program requests display of specific messages by referring to its message code. The application program, thus, remains unaffected to changes in the corresponding customizable message texts.

15

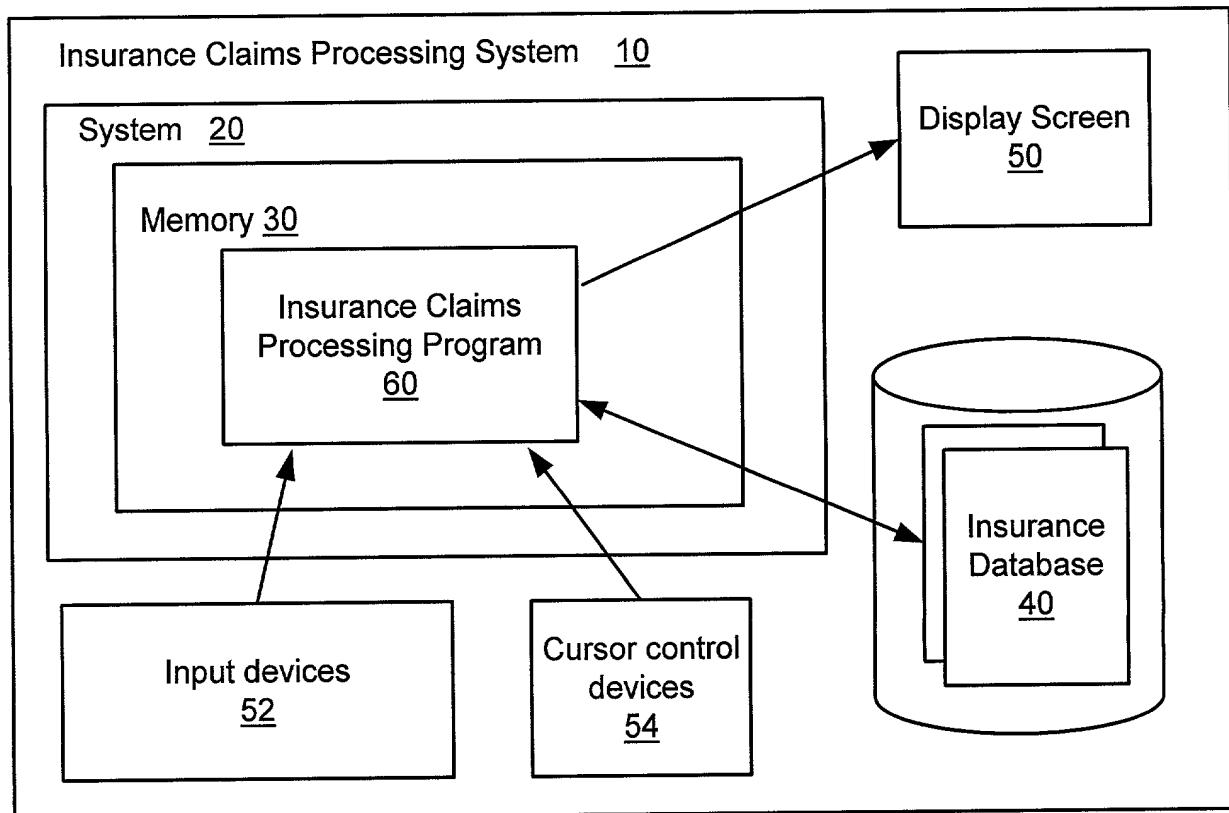


FIG. 1a

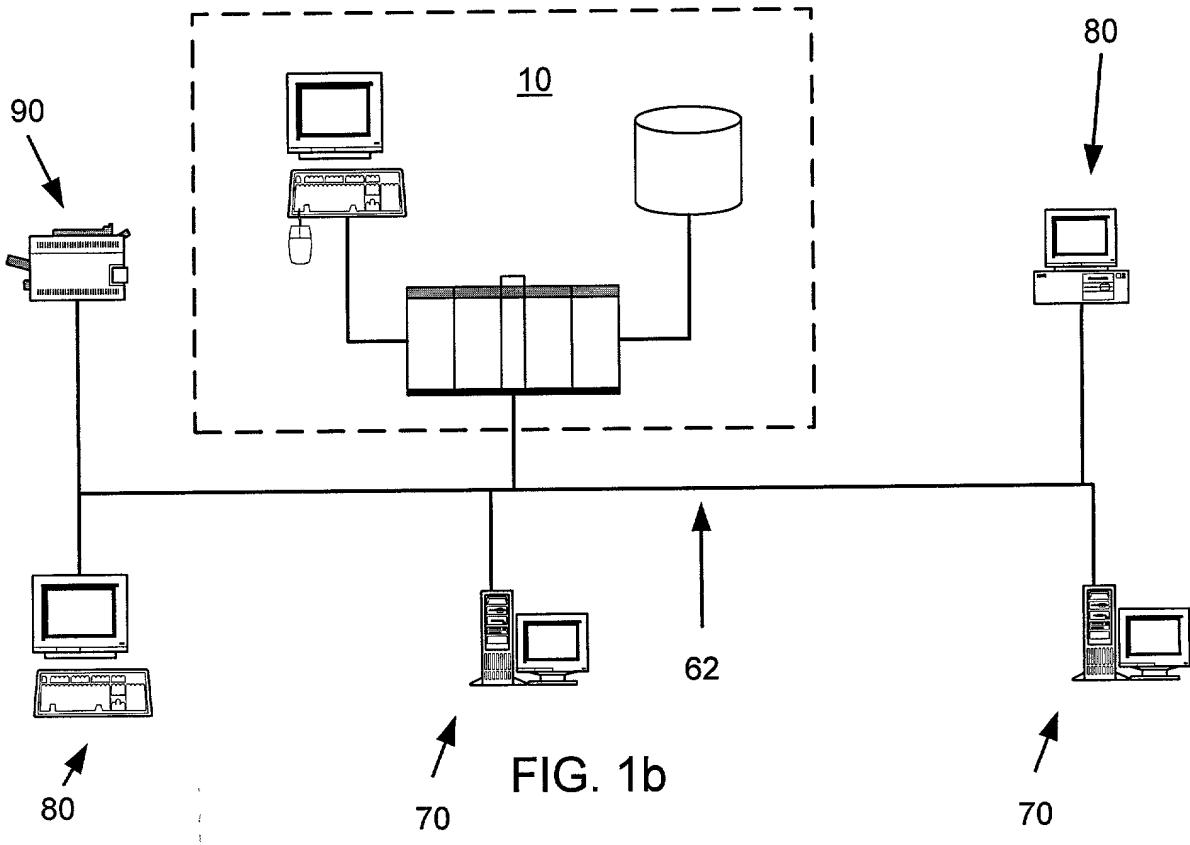


FIG. 1b

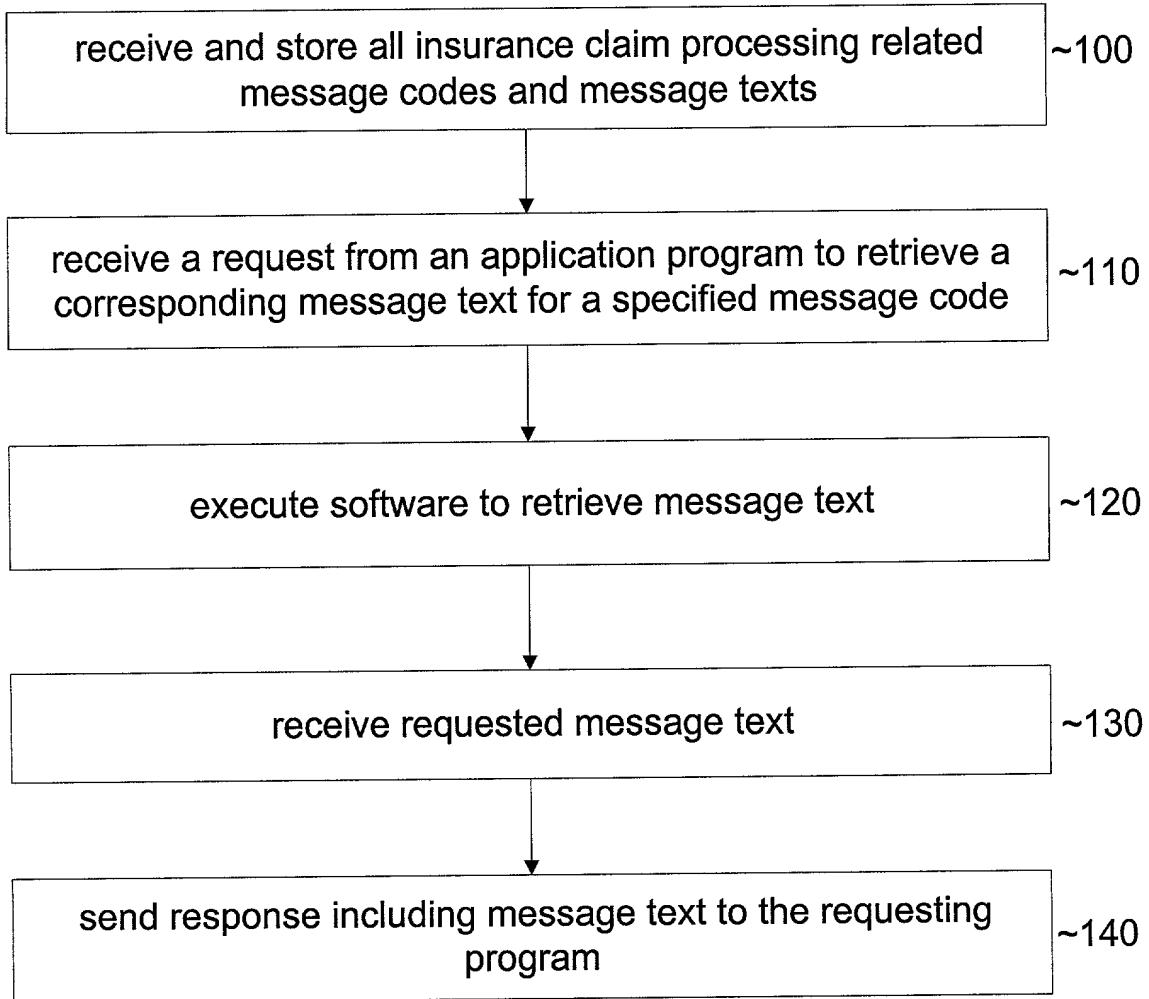


Figure 2

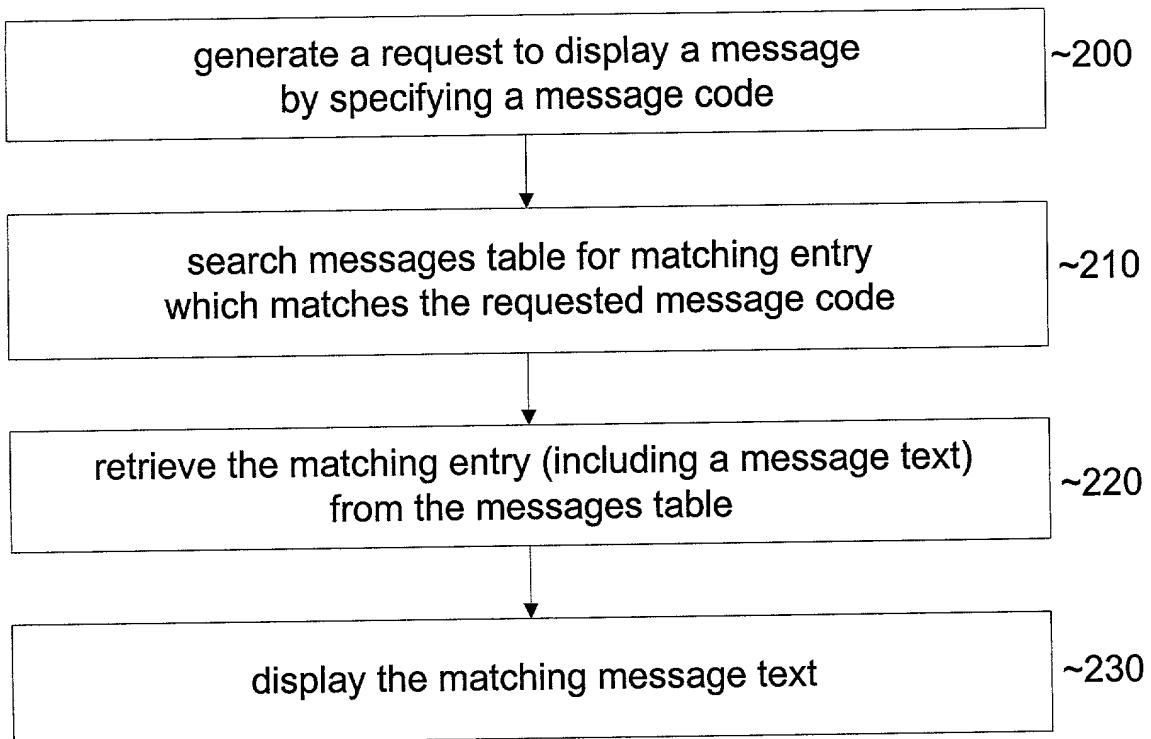


Figure 3

300      310      320

Message Section	Message Code	Message Text
AA	A01	'Birthdate (mm/dd/yy)'
AB	A02	'ERROR - Integer value must be between 0 and 9.'
ZZ	Z99	'Select colour.'

Figure 4